SOVEREIGN

Bringing imagination into play

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Operation and Maintenance Manual

Play Equipment and Surfacing

Inspection and Maintenance Guide

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Introduction

Thank you for choosing Sovereign Design Play Systems Limited for your play area requirements.

In this manual you will find valuable information on the operation and maintenance of your equipment / surfacing to ensure it stays in excellent condition, it is however your responsibility as the owner/ operator to carry out and record regular inspections and maintenance.

Sovereign Design Play Systems Limited is not responsible for accidents and injuries resulting from improper use of the equipment and/or improper operation and maintenance.

We strongly recommend that, at a minimum, you abide by this manual and incorporate the information into your own site-specific Operations and Maintenance Manual and regular operations and maintenance procedures.

1 Safe Play

This manual recommends inspection and maintenance, however, as each play area environment is different, you should evaluate and risk assess your play area based on age of users, physical ability, usage, location and other factors specific to your site.

Children should be supervised at all times while playing on or around the equipment.

2 Why We Provide This Important Information

The purpose of this manual is to provide you with general instructions, advice and information on how to inspect and maintain your equipment, provide a safe and enjoyable play environment, extend the life of the playground components, and conform to Sovereign Design Play Systems Limited warranty requirements.

3 Who Should Read This Manual

Sovereign Design Play Systems Limited recommends that all who will be involved with the supervision, inspection and maintenance of the play area reads the entire manual.

Maintenance is your responsibility and this manual should be kept for reference for the lifetime of the equipment.

4 Warranty Information

Our equipment is designed and manufactured to the highest quality standards. If used correctly, inspected and maintained well, it will provide years of enjoyment.

We ask that you carefully review the warranty information.

Is it very important all inspections and maintenance carried out are recorded and kept, as evidence may be required in order to valid any warranty claim.

During the warranty period, Sovereign Design Play Systems Limited will repair the defective component or, replace the defective part with a new component, at our discretion. Components replaced or repaired during the warranty period will carry the unexpired portion of the original warranty

Product	Warranty Period
Installations and sub-bases (equipment and surfacing)	One year on workmanship
Timber (main components)	Twenty year against failure due to rot or infestation
Metalwork	Twenty five year against failure (metal fatigue)
Metal Components	Five year against failure
Fixings	One year
Ropes (including their fixings)	One year
HDPE Plastic	Five year against de-lamination, splitting and cracking due to defects in the sheet manufacture
Thermoplastic Playground Markings (when applied to tarmac in sound condition)	Five year* for both performance and application for foot traffic (vehicle usage is not covered) *In the last 12/18 months of the warranty period the markings may start to deteriorate and small fragments of plastic may work loose from the surface.
Safer Surfacing: Wetpour, Rubber Mulch, Grass Tiles	Five year (guarantees safety properties relating to Head Impact Criteria)
Artificial Grass	Five year
Painted Lines on Artificial Grass	Not applicable
Bark Chippings / Loose Rubber	Not applicable
Tyres	One year against failure
Traversing Walls Holds	One year against breakage
Magnetic Wall Activity Panels	One year against faults
Metal Outdoor Gym Equipment	Two year manufacture
Polycarbonate Roof Panels	Ten year against light transmission and weather breakage (from hailstone impact only)
Rubber Toadstools	One year
Wooden Mushrooms	One year (excludes natural shrinkage causing air cracking)
Cheshire Picnic Tables	Three year
Round Tables	Twenty year against rot/infestation
Willow Structures	Not applicable
Plastic Caps	One year

5 Exclusions

Sovereign Design Play Systems Limited have no obligation or responsibility to repair and/or replace equipment / surfacing if damaged by the following:-

1. Acts of nature / God
2. Improper use
3. Surface staining due to mould growth
4. Deliberate, accidental and cosmetic damage
5. Defects resulting from work carried out by a third party
6. Subsidence caused by subsoil ground movement or shrinkage, including ground underneath surfacing
7. Timbers which subsequently rot due to being installed in areas that retain water or are prone to flooding
8. Issues relating to sub-bases, including edges of surfacing installed by a third party
9. Structural instability of existing surfaces
10. Damage caused by machinery or vehicles of any kind
11. If the owner fails to perform and document regular inspections and maintenance
12. Metal components which rust due to geographical location

6 Additional Information

1. All Sovereign Design Play Systems Limited warranties are based on the equipment being maintained in accordance with manufacturer's recommendations and BS EN 1176 standards
2. Repairs to equipment and surfacing carried out by others will invalidate the warranty
3. Should any equipment be modified or relocated by another, the duty of care will be passed onto the persons involved
4. Any replacement parts used which have not been provided by Sovereign Design Play Systems Limited will invalidate the warranty
5. Care must be taken when using machinery near timbers (such as a strimmer). If timber is cut this will penetrate the preservative and lead to the onset of rot and infestation and this will invalidate the warranty
6. Shrinkage on Wetpour safer surfacing can occur and up to 10mm is considered acceptable

7 Duty of Care

Play provision is governed by the Health and Safety at Work Act 1974 and the Occupiers Liability Acts of 1957 and 1984. As a provider of play equipment we have a legal and moral responsibility to ensure our play equipment and surfacing is supplied and installed to the relevant BS EN standards.

Sovereign can only ensure the Duty of Care when workmanship has been completed by Sovereign's own installation teams or by a pre-approved contractor. If an unauthorised source carries out any work on the equipment, the duty of care would pass on and our warranties will cease to apply.

8 British Standard guidelines

Sovereign Design Play Systems Limited design, manufacture and install the equipment in accordance with the requirements of British Standard BS EN 1176 and as such the equipment should be maintained to the same guidelines.

9 Inspections

The frequency and level of inspection will depend on the location, degree of use, and the likelihood of misuse and we recommend the frequency of inspection to be a minimum as follows:

- A weekly routine visual inspection
- A 3-monthly operational inspection in open spaces, and 6-monthly in schools to be completed by a qualified Inspector.
- An annual main inspection by a specialist independent of the play provider

10 Routine Visual Inspection

A routine visual inspection is required to check the equipment's basic condition, especially faults due to recent vandalism, breakages and cleanliness of the area.

Routine inspections should be carried out daily or weekly depending on use.

When new playground equipment is first used the novelty of the equipment may lead to initial above average use, therefore we recommend a daily inspection is made during this initial period.

Suitably trained staff that have a basic knowledge of playground equipment with the ability to identify recognisable hazards can carry out these inspections. A record to confirm the inspection has been completed and of any findings should be kept to ensure your Sovereign Design Play Systems Limited warranties are upheld.

To assist in these routine inspections, we have included a simple check list within this manual on the back page.

11 Operational Inspection

An operational inspection is a more detailed inspection and will check the operation and stability of the equipment, especially for wear and will be carried out in line with the BS EN Standard. This type of inspection should be carried out every four months, and should be carried out by a competent person with an understanding of the regulations. A written record of any findings is required and should be kept.

12 Annual Inspection

The annual inspection should be carried out at intervals not exceeding 12 months. This inspection is intended to establish the overall level of safety of the equipment, foundations and surfaces.

A qualified inspector is required to carry out an annual inspection and provide a written report. This is specialist work and requires knowledge and experience. A third party (who is independent of the play equipment provider, designer, manufacturer and installer) should carry out this annual inspection.

13 RPII Inspectors

While staff can carry out routine inspections, qualified inspectors are required for operational and annual inspections.

The RPII (Register of Play Inspectors International) was formed in 1999 by four safety standard led industry bodies, API, ILAM, NPFA and RoSPA to examine and certify competence in play safety inspection.

Sovereign Design Play Systems Limited inspectors are accredited to the Register of Play Inspectors International and can carry out Operational Inspections on your behalf for both Sovereign and other manufacturers' play equipment and will (charges apply)

- ✓ **Inspect and review all Sovereign equipment and surfacing**
- ✓ **Identify any areas of concern along with a risk assessment**
- ✓ **Provide a detailed written report with suggested actions**
- ✓ **Carry out minor repairs whilst on-site**
- ✓ **Supply a quotation for essential repairs on other companies equipment**

Our Reports include any recommended repairs or actions that may be required while serving as evidence that you have a correct process in place to protect the safety of children using the equipment and surfacing.

We offer a range of Inspection Packages which include essential repair and maintenance cover on your Sovereign equipment and surfacing, to continue throughout the life of this agreement. You are ensured complete peace of mind after standard warranties expire and continued protection against unexpected costs covering:-

- ✓ **All equipment and surfacing supplied and installed by Sovereign**
- ✓ **All labour costs**
- ✓ **All defects in materials and workmanship**
- ✓ **Reinstallation of loose posts**
- ✓ **Tightening and replacement of fixings**
- ✓ **Repairs to surfacing edges**
- ✓ **Touching up damaged paintwork**
- ✓ **Repair or replacement of damaged tyres**
- ✓ **Repairs to polycarbonate roofs and guttering**

As Sovereign designed, manufactured and installed your play equipment – we are the ideal choice to inspect and maintain the equipment because:

If anything goes wrong, we will fix it

If anything breaks, we will repair / replace it

14 Sovereign Compliance - Inspection, Maintenance and Repair Package

Gold Package

Only **£39.99** per month:

- ☑ **Three** safety inspections per annum carried out by an RPII Inspector
- ☑ **Inspection of other supplier play equipment**
- ☑ **Three** detailed safety and maintenance report documents
- ☑ All essential maintenance and repairs required
- ☑ **25% discount on all consumable parts**

Silver Package

Only **£29.99** per month to include:

- ☑ **Three** safety inspections per year carried out by an RPII Inspector
- ☑ **Three** detailed safety and maintenance report documents
- ☑ All essential maintenance and repairs required

Bronze Package

Only **£14.99** per month to include:

- ☑ A single safety inspection per year carried out by an RPII Inspector
- ☑ Detailed safety and maintenance report documents
- ☑ All essential maintenance and repairs required

There is also an option to have a one-off safety inspection, where we will provide a report only. No maintenance will be carried out under this option. This option includes inspection of other supplier's play equipment. £149, plus VAT

15 Sovereign Compliance - Inspection, Maintenance and Repair Package - Terms and Conditions

- The Maintenance and Repair agreement shall commence after the first Sovereign Compliance Inspection and subject to Sovereign equipment and surfacing being of reasonable condition. An inspection is necessary before any essential maintenance and repairs are undertaken.

- Inspections are carried out only by RPII operational level inspectors.

- Essential maintenance and repair cover is only applicable to products supplied and installed by Sovereign only during the lifetime of the Sovereign Compliance agreement and is limited only by the expected lifetime of products

- Additional inspections are chargeable at £99.00 plus VAT per inspection, alternatively the Sovereign Compliance Package can be upgraded

- The minimum term of any Sovereign Compliance Package is 12 months. Notice of termination of contract is required a minimum of three months prior to the last day of the agreement.

Exclusions

- Other company products
- Acts of God
- Improper use
- Surface staining due to mould growth
- Deliberate, accidental and cosmetic damage
- Defects as a result of work carried out by a third party
- Subsidence caused by subsoil, ground movement or shrinkage
- Issues relating to sub-bases, including edges of surfacing not installed by Sovereign
- Structural instability of existing surface
- Damage caused by mechanical equipment such as mowers and trimmers
- If the owner fails to perform and document regular inspections and maintenance
- Products installed in an open site
- Component parts (including ropes)

16 Timber

The majority of the timbers used in the production of our play equipment are specially selected softwood machine round poles. They have a high quality sanded finish combined with chamfered tops in accordance with BS EN 1176. The raw material is sourced from well managed sustainable forests and certified in accordance with FSC.

16.1 Timber Protection Treatment

These timbers are kiln dried prior to being pressure treated to BS8417 standards with an Osmose Celcure preservative process system.

(Please note, we no longer use ACQ treatment, a water based preservative or CCA, an arsenic based preservative treatment in our timber equipment).

16.2 Rot and Infestation

Any visual signs of rot or infestation should be reported to Sovereign, upon receipt of a report a full inspection by one of our RPII Qualified Inspectors will be required.

The result of this inspection will confirm if rot or infestation has occurred and suitable action will be recommended, including monitoring regimes, repair and, if required, replacement timber components.

The inspection will also identify probable causes of decay and infestation. Please note, any signs of decay and infestation caused by altering, cutting, drilling and shaping of the timber retrospectively could expose the timber unnecessarily, and invalidate the warranty.

Special attention should also be given to maintaining the grounds around the timber equipment. When using machinery (such as a strimmer) near timbers, if the timber is cut this will penetrate the preservative and lead to the onset of rot and infestation and invalidate the warranty.

16.3 Splintering

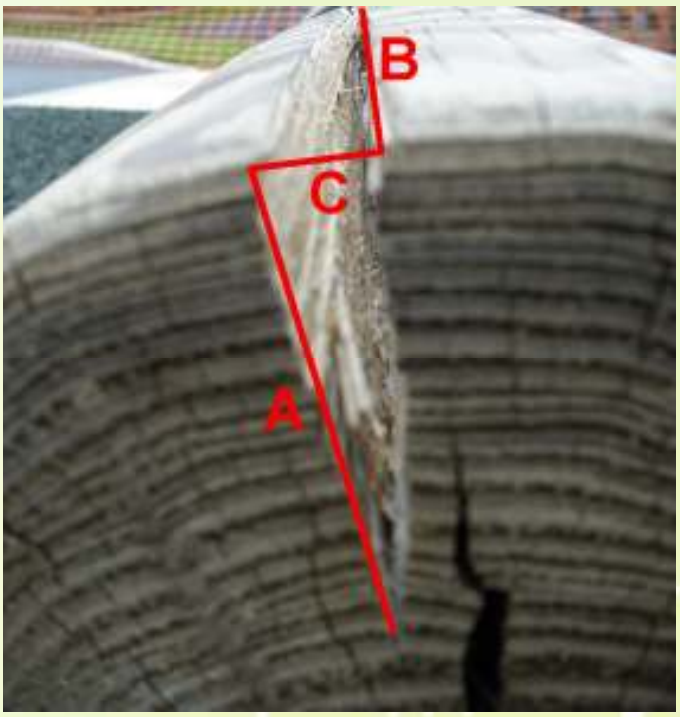
It is possible that in the event of air cracking that the timber itself will generate splinters, these can be easily remedied with a quick rub with glass paper along the crack.

As part of your maintenance additional sanding may be required from time to time to keep any splintering to a minimum.

16.4 Air Cracking in Timber

As timber is a natural product it will continue to adapt to atmospheric conditions. It is perfectly natural for air cracking (splits) to happen, this will not affect the strength or the life of the timber adversely. During hot and persistently dry weather air cracking is most likely to occur and this will recede during cooler and damp weather.

The timber should not crack more than 8mm in width (dimension C), the length of the crack does not matter (dimension B) but the depth should not be more than half of the diameter of that log (dimension A).



200mm diameter Step Up Logs and Log Walk Logs are supplied in Landscape Grade, this timber is only used for the purpose of stepping and therefore have no structural requirements placed on them, and because it is landscape grade it may well open up more than 8mm under extreme conditions, this is still normal.

17 Ropes

All ropes used in the production of our play equipment are made by bonding galvanised steel wire within a polypropylene fibre. This process creates a strong, durable rope which is resistant to vandalism, fraying and the elements, making it perfect for use outdoors.

All fixings included are stainless steel. Damaged or badly worn ropes, chains and connectors such as D shackles and Quicklinks should be replaced as soon as possible.

17.1 Fixings

All fixings used in the installation of our play equipment are zinc coated to prevent rust and keep the strength of the fixing intact. We counter-sink all the holes within our timber meaning the bolt is fixed and covered with a rigid plastic cap to ensure safety and prevent vandalism.

Damaged fixings should be replaced immediately, whereas damaged or missing caps should be replaced as soon as convenient. (charges may apply)

To tighten fixings the plastic cap will need to be removed carefully using a screwdriver, box spanner or long reach socket, tighten as necessary, then refit the plastic cap. It is important the fixings are not over tightened as timber expands and contracts depending on atmospheric conditions.

18 Tightening Equipment Fixings

Countersunk Cap

Raised Donut Cap

DO NOT OVER-TIGHTEN during hot, dry conditions. During cooler damp weather the timber will expand again and over -tightening may result in damage to the timber or fixings.

Carefully remove the countersunk cap or the cap top on the raised donut with a small flathead screwdriver to prevent damage. When replacing the caps use a wooden or rubber mallet to gently tap into place.

Use a 13, 15 or 19mm Box Spanner or Long Reach Socket to tighten or loosen nuts, bolts or coach screws. The size required will depend on the size of the fixing used.

19 Traversing Wall holds

Check all holds are firmly in place and in good condition. If tightening is required carry out as necessary and check holds for damage caused by wear or vandalism. Damaged holds should be replaced.

20 Rubber Toadstools

Have a one year warranty and are maintenance free, apart from regular cleaning.

21 Tyres

Check for splits and exposed wire caused by wear or vandalism. Periodically paint the tyres with approved black paint as this will reduce black marks on clothing. Damaged tyres must be replaced.

22 Wooden Mushrooms

Have a one year warranty but not against natural shrinkage causing air cracking. Regular maintenance such as sanding and applying a preservative will be required.

23 Magnetic Wall Activity Panels

Check that the magnetic surface remains clean and free of dirt. Should any magnetic pieces be dropped, these should be thoroughly cleaned of grit and dirt before re-using to avoid scratching of the panel surface.

NB: the Plain Wall Panels are for use in conjunction with magnetic pieces only and not marker pens, as this will damage the surface.

24 Thermoplastic Plastic Markings

Our thermoplastics playground markings are non-toxic, extra reflective, free of lead and chromates and have excellent self-cleaning abilities.

Vehicles should not be driven over the markings as this will cause the material to crack and the markings to lift; repairs for this are not covered by our warranty.

During hot weather, the thermoplastic material may soften slightly and objects (such as chairs) should not be placed on the markings as this may cause indentations which are not covered by our warranty.

25 Metalwork

Damage caused to any galvanised surface should be sanded and then touched up using an approved zinc/aluminium enriched paint and any other painted surfaces should follow the same process but using approved primers/undercoats/finishing paints that have been formulated to comply with the Toys (Safety) Regulations.

Any bare metal should be sanded to remove loose scale or rust prior to painting. The manufacturer's recommendations should be followed for the coatings chosen.

25.1 Metal Components

Metal components are either made from stainless steel or steel that has been put through pre-treatment processes to provide non-toxic, weatherproof and extreme atmospheric resistance properties. Metal components are powder lacquered with a polyester-type coating.

26 Slides

Some materials, in particular metal, may become hot during warm, sunny weather and care should be taken at this time.

27 Space Nets

Maintenance is restricted to retightening only. This is very important to ensure the net will last many years.

After approximately two weeks of installation the net will need to be retightened.

Further retightening may be necessary usually up to a maximum of three times. After this period the net should be maintenance free, although we still advise that occasional inspection is carried out.

To retighten the net, the protective covers need to be removed to expose the four tensioning screws. The slack in the net is to be taken up evenly until the net is taught. When fully tensioned the net must not be able to touch the ground midway between any two anchorage points when stood on.

28 Consumables

Parts that are subject to constant movement may eventually show signs of wear and tear. Although every effort is made to design our components to last as long as possible, spares may be required within the product's life span. We hold a stock of most spare parts which can be dispatched promptly.

29 Artificial Grass

To keep your Artificial Grass surface in its best possible condition and to ensure its longevity it is important to carry out some minimal maintenance.

To achieve the best out of the surface the grass needs to be brushed with a soft bristle brush at least once a month to make sure the pile remains standing upright.

It is extremely important to remove any debris daily to reduce the risk of moss or weed growth on the top of the surface and ensure good drainage.

29.1 Painted Lines (on Artificial Grass)

Any painted lines on Artificial Grass will eventually fade as the paint coating wears off over time and this will depend on usage and as such no warranty is offered.

30 Grass Tiles

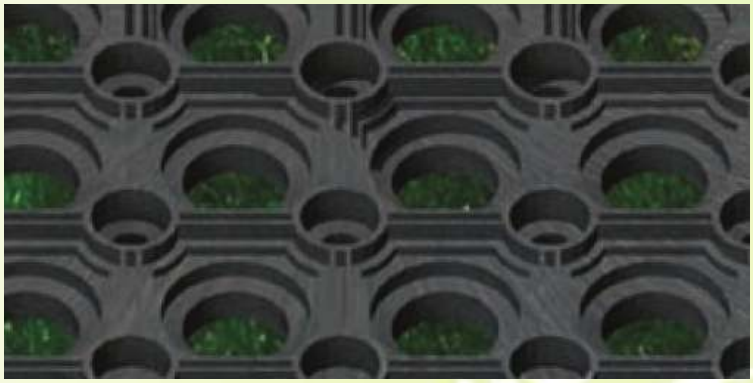
Grass Tiles may be subject to movement and subsidence if the existing grass / soil surface is soft, loose, suffers from poor drainage or is prone to flooding during periods of inclement weather and should be inspected as part of the routine visual inspection.

Where the Grass Tiles show signs of subsidence or subside below the existing grass / soil surface, the following action is required:

1. Remove all retaining pegs and cable ties from the tiles within the affected area
2. Remove the Grass Tiles and stabilising membrane [if fitted]
3. Rotivate and compact the affected area
4. Replace turf or reseed as required
5. Re-install the membrane and Grass Tiles ensuring all are tied in and secured with cable ties and pegs

If the ground is compressed through use and the grass roots pull the tiles and stabilizing membrane down but with no signs of subsidence, the retaining pegs may remain in their original position and stand proud of the tiles. The following action will be required.

Using a rubber or wooden mallet all retaining pegs standing proud should be driven back into place below the finished level of the tiles.



31 Loose Fill Pits

Check there is no evidence of broken glass or foreign objects in the bark or rubber mulch pit especially when raking.

Loose fill surfaces require regular forking over and raking to maintain an adequate depth, and this should be carried out every 7 to 10 days.

Periodical topping up is advised as soon as the required depth can no longer be maintained.

Should surfaces not be maintained properly grass and weeds may grow through the surface.

N.B. Sovereign Design Play Systems Limited do not lay a membrane in loose fill pits under 300mm as the membrane can loosen and cause a trip hazard.

32 Bonded Rubber Mulch

Bonded Rubber Mulch is a low maintenance surface compared to other loose fills products, however as with any surface, good maintenance and cleaning will enhance the longevity and cosmetic appearance.

32.1 Shredding

A small amount of shredding of the Rubber Mulch from the top layer of the surface is quiet normal.

32.2 Routine Cleaning and Inspection

Over time the surface may get covered with dirt, debris and a small amount of loose pieces of rubber (minor dislodging of rubber shred is quite normal)

Any litter, leaves and other detritus material on the surface need to be removed daily to avoid the debris rotting down and potentially impeding drainage or reducing surface traction.

32.3 Hand Brushing

The surface can be cleaned with a soft or semi-stiff brush to break down surface dirt. Do not aggressively brush off surface debris, as this is more likely to dislodge any loose rubber on the surface and grind in fine vegetation material between the bonded rubber.

32.4 Power Brushing

The best method for removing surface debris is to use a powered leaf blower.

32.5 Washing the surface

In most cases the use of cleaning agents is not required; however from time to time stubborn stains many require a light application of household or commercial detergents. Corrosive materials like bleach should never be used; however a light detergent may be used in the diluted form as per the manufacturer's instructions.

Thoroughly wash the surface to rinse off any detergent and dirt, using a water hose and spray nozzle, or power washer set on fan setting only. It is important to not have the power spray nozzle too close to the surface and the spray kept to a low / medium setting , to avoid dislodging any rubber shred form the surface.

32.6 Weed and Grass Migration

No matter how much care is taken, weeds may occasionally appear on the surface usually as a result of windblown seeds. Small numbers of weeds can be removed by hand without damaging the surface. If weeds are removed by hand, it is important to ensure that the full roof of the weed is extracted, not broken off.

Some weeds are more prolific if they are simply cut off at surface level. If the weeds are deep-rooted it is advisable to kill them off with an appropriate weed-killer. Localised areas of self-set weeds can be treated with domestic weed killers without causing damage to the surface. Oil-based weed killers should not be used.

Leaves, tree flowers, pine needles and other detritus should not be allowed to remain on the surface for any length of time. If this happens they will rapidly rot down forming a drainage-inhibiting 'skin' within the surface, providing a growing medium for algae, moss, weeds and grass.

Special attention should be made to the migration of grass cuttings. All grass cuttings should be immediately removed to avoid germination.

32.7 Colour Transfer

Rubber Mulch is a colour coated surface, over time the colour will darken due to physical wear and weathering and with usage the colour coating will wear off and expose the natural black rubber, which may result in the carbon black transferring on to clothing and footwear that come into contact with it.

Sovereign Design Play Systems Limited offer a re-colouring service. Please contact our Customer Services department on 01702 291129 for further information.

32.8 Snow and Ice

Snow and ice are not harmful and will melt through. Brushes or rubber edged scrapers may be used to carefully remove snow, whilst metal shovels or scrapers will damage the surface and should not be permitted.

Chemical de-icing agents or rock salt / grit must not been used as these are harmful to the surface. We would recommend a non-salt based urea mix such as Ice Melt.

The surface may become slippery after initial installation and in conditions when a film of moisture overlays the surface, e.g. when dew or frost is present. Whilst care should be taken, this will wear off as the children use the surface.

33 Wetpour

Routine maintenance will ensure that the playing surface is kept clean and delivers consistent performance.

33.1 Maintenance Schedule

33.1.-1 Weekly

Clear leaves, rubbish and debris from the surface; dealing with any new weeds, moss or algae. Inspect the whole surface for signs of damage, seek advice from the manufacturer as required.

33.1.-2 Twice a Year

Check for moss and algae growth, food stains, shoe marks and clean as appropriate. Inspect the whole surface for signs of damage, seeking advice from the manufacturer as required.

33.2 Essential preventative steps

- Sweeping leaves and other detritus from the surface
- Jet washing the surface to prevent any accumulation of an impervious skin on the surface that may impair drainage (maximum of a medium setting)
- Ensuring that only appropriate footwear is used on the surface, high heeled shoes, studs and spikes are not appropriate.
- Inspecting surface for signs of damage and arranging remedial repairs promptly

33.3 Keeping the Surface Clean

Leaves, flowers, pine needles and other detritus should not be allowed to remain on the surface for any length of time. These rapidly rot down forming a drainage-inhibiting ‘skin’ within the surface and providing a growing medium for algae moss and weeds.

33.4 Discolouration

When Wetpour is first laid there may be an appearance of a yellow tint on the top of the surface, which is caused by the formation of transparent crystals from the resin during the curing process which causes light to refract.

This effect is most noticeable with colours such as blue and eggshell and although this cannot be prevented it is only a temporary effect. With usage the top layer of resin will wear down and reveal the true colour of the rubber granules. Some coloured rubbers are more sensitive to ultra violet degradation than others.

33.5 Staining

EPDM rubber is quite UV stable and is much less likely to suffer from transfer of stain related ingredients as tyre rubber. However, it is a recycled material and does still contain quantities of carbon black and therefore it should not be considered to be non-staining.

33.6 Stain Removal

Most stains can easily be removed with a solution of hot (not boiling) water and household detergent e.g. washing-up liquid. The removal of chewing gum can be effected using a freezing aerosol. Heavy oil marks can be removed with a cloth and methylated spirits.

33.7 Snow and Ice

Snow and ice are not harmful and can safely melt through. Brushes or rubber edged scrapers must be used to remove snow. Metal shovels and scrapers will damage the surface and must not be used; neither should chemical de-icing agents be used.

Salt can be used and will not damage the strength or integrity of the surfaces but can leave staining. If applying salt, a thorough sweep and power washing should be done as soon as the cold weather has subsided. Although a little more expensive we would recommend a non-salt based urea mix such as Ice Melt.

If heavy rain falls immediately after a very cold spell, the surface may become flooded for a few hours. Do not worry, the ice will soon melt and the surface will then drain normally.

The surface may become slippery after initial installation and in conditions when a film of moisture overlays the surface, e.g. when dew or frost is present. Whilst care should be taken, this will wear off as the children use the surface.

34 Parasols and Shade Sail Canopies

- Never place a BBQ or similar heat source directly beneath the sail. The fabric is not heat resistant and could melt. Smoke laden fat can also build up in the fibres of the fabric and catch alight or discolour the material permanently.
- Protect the product from sharp instruments or hot sparks from electrical tools. It is advisable to not permit tradesmen to work beneath or above the sail without first asking what they intend doing.
- Do not allow the sail to come into contact with rust, petroleum based solvents, strong acids, alkalise or chlorine based products.
- Do not drag the sail, or any part of it, over rough ground or concrete.
- If your sail is over any part of a swimming pool do not allow it to come into direct contact with pool water. Be very careful when removing or fitting the sail. Wash thoroughly with clean water immediately if immersed in pool water.
- Do not allow branches of trees or other foliage to come into contact with the sail. Always prune enough back so that in high winds these will not touch the sail.
- Be sure to fasten all shackle connection pins tightly using an adjustable spanner or screwdriver to ensure they are not loose and regularly check this, especially following high winds.
- Report any loose or frayed thread, fabric faults or connection difficulties as soon as they are noticed.
- An annual inspection of the shade sail is recommended as this will highlight any small problems before they become bigger issues thus prolonging the life of the fabric.
- Shade Sails which are loose are more prone to damage. Without optimum tension the fabric could be irreparably damaged and the support structure may suffer as a result. Rectify any loose corner fitting immediately.

Over the years the stitching can give way due to being broken down by the sun, this should be checked and repaired as and when required.

34.1 Cleaning

Cleaning is recommended every 6-12 months. This will ensure all environmental residues are removed to increase the life of the fabric, while reducing the likelihood of stains or growth such as mould on the fabric.

In order to clean the fabric you should use a light, low concentration detergent in conjunction with a soft bristles brush, work the soap into the fabric and leave for 15-20 minutes and then rinse the fabric. Rinsing with a light duty pressure washer is permitted, do not spray the fabric directly with a high pressure hose as this could damage the fabric.

34.2 Snow Instructions

Shade Sail Canopies are engineered to take a snow load of 15kgs m^2. It is impossible to say how deep the snow will be at this weight so you must remove the snow from the structure so it does not reach this level.

During winter months it is advisable to de-tension and remove the fabric during periods of snow fall. Any snow on the fabric needs to be removed (using a broom).

35 Living Willow Structure

The following guidelines are simple and easy to follow and require minimal time and effort. Following these simple guidelines will ensure your living willow structure grows and thrives year after year.

35.1 Watering

In a normal British springtime, on most soils there is adequate moisture in the soil to ensure good establishment of your willow structure. However due to recent climate change this cannot be relied upon as before.

In a dry spring (from March onwards) give the soil around the structure a thorough soaking. A leaky pipe around the whole structure is an ideal method or put a sprinkler on for a good few hours or even overnight. Move the sprinkler periodically to cover the whole structure.

When established, willow structures are very resilient but check for signs of stress during extended dry hot periods and on dry soils (Leaves turning yellow and dying in summer) and water as necessary. Mulching with membrane and/or wood chip or similar will help to conserve moisture in the soil and minimize watering requirements.

35.2 Weeding

Ideally your willow structure will have been planted through a weed suppressing membrane. In this case weeding will be minimal, remove by hand any weeds, including grass, that are emerging through the planting holes. Repeat this until weeds no longer appear.

If no membrane has been used then you will have to weed by hand on a regular basis to minimize competition for water, nutrients and light. Willow will often grow in the presence of weeds but will not thrive as well as it would without competition.

35.3 Trimming

There are several options for maintaining your willow structure.

1. To keep the shape of the structure throughout the growing season the shoots need trimming 2 to 3 times. Shears or powered hedge trimmers are suitable. You may trim lightly or hard according to preference but remember some leaves should be left on during the growing season. Good times to trim are early June and late July and a hard trim in winter before new spring growth. This method maintains the shape of the original structure, encourages even growth and helps to maintain structural integrity. It is the best maintenance method for healthy, long living willow structures and is strongly recommended.
2. As the shoots grow longer weave them back into the structure. This is an enjoyable activity particularly for children but the structure may eventually become choked causing some die back. Most plants prefer free circulation of air and light and willow is no exception.
3. Allow the shoots to grow during the growing season and then harvest the rods in the winter. The rods may be up to 10ft long and useful for craft work.

35.4 Pests

Large black aphids are sometimes found on willow. These do not cause the willow to suffer in any way but may attract wasps in the late summer which feed on the aphids excretions. Wasps and children generally do not mix very well!

The aphids may be dealt with by trimming that part of the willow with the aphids on and then disposing of in sealed bags. If this is not practical, they may be sprayed with a soft soap or washing up liquid solution several times until most are destroyed. With good and timely maintenance your living willow structure may last for decades giving endless hours of enjoyment.

Notes

36 Routine Inspection Check List

Certain key items must be checked on all types of play equipment in connection with supervision and maintenance routines.

Due to atmospheric changes, timber can shrink and expand therefore bolts and screws are to be tightened as necessary. Loose bolts can cause chronic safety problems and are always a safety risk, especially in wooden constructions and those with moving parts. Check that no bolts or screws are missing. A hole means there is a screw or bolt missing.

36.1 General Area

- ☐ Play equipment and play area is clear of rubbish, foreign objects and clean
- ☐ Correct ground / surface clearances are being maintained

36.2 Equipment

- ☐ Foundations are not exposed, loose in the ground or cracked
- ☐ Fixings are tightened and have no protruding sharp edges
- ☐ Surface finishes have no sharp edges, damage, splinters, rust or other deterioration
- ☐ Welds show no sign of visible cracks or corrosion
- ☐ Components are secure and there is no excessive movement between them, which could lead to finger traps
- ☐ Any visual signs of rot or infestation

36.3 Safer Surfacing

- ☐ Check the surfacing is not compacted, damaged or water logged
- ☐ Ensure there are no sharp objects or contaminates
- ☐ Clear surfaces of any weeds, foreign objects and rubbish
- ☐ All Grass Tiles should be inspected as per the routine inspection schedule and the retaining pins pushed back into place or removed if appropriate
- ☐ If a loose fill surface, ensure its raked and at the correct thickness

36.4 Rope Components

- ☐ Eyebolts
- ☐ Shackles and Links
- ☐ Ropes themselves
- ☐ Ensure that all ropes are not frayed, damaged and have no protruding wire
- ☐ Check that all the fixings are tight, in place and have no protruding sharp edges